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XII.—*Notes on Mr. Layard's 'Birds of South Africa.'*

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(Plate IV.)

MR. LAYARD, whose very interesting observations on the Birds of Ceylon* will be fresh in the recollection of many ornithological students, has again done excellent service to the cause of science by the publication of a 'Descriptive Catalogue of the Birds of South Africa,' which must prove a most useful book of reference to all who desire to investigate the ornithology of that region, whilst the very valuable, though succinct, information which it contains as to the habits of many of the species enumerated will doubtless also render it attractive to all lovers of birds and of that bird-life which is equally full of interest in every quarter of the globe.

Mr. Layard having limited his labours to those species which have been recorded as occurring south of the twenty-eighth parallel of south latitude, his Catalogue does not include many interesting birds which, though occurring in Damara Land and Great Namaqua Land, have not been observed south of those

* Published in the 'Annals and Magazine of Natural History' between 1851 and 1854, 2nd series, vols. vii., ix., xi.-xiv.

countries. It is, however, to be hoped that the ornithology of Damara Land may receive the ample illustration which it merits from the pen of Mr. C. J. Andersson, who has so thoroughly investigated it, and whose intention of publishing an important work on the avifauna of that and of the adjacent districts has already been announced*.

I doubt not that every reader of Mr. Layard's pages will join with me in the wish that so valuable a work as 'The Birds of South Africa' may speedily reach a second edition; and it will afford me much gratification should the following observations prove of any service in suggesting points for further investigation, or, in some few instances, for amplification or correction when the next edition of Mr. Layard's book is preparing for the press. I may add that I have availed myself of the present opportunity of correcting a few errors in my own lists of the birds of Natal, and that I have to thank Mr. Layard for the aid which his remarks have afforded me in so doing. The species to which my observations refer are noticed in the same order as that in which they are arranged in Mr. Layard's Catalogue; and the numbers prefixed are those which are there applied to the several species referred to.

1. *GYPÆTUS MERIDIONALIS*, Keys. & Bl. Southern Læmmergeyer.

The genus *Gypætus* appears to me to consist of but two species, *G. barbatus* and *G. meridionalis*. These, I think, are certainly distinct, as the points in which they differ, though apparently not very important, are yet very constant.

They are thus defined by Dr. Rüppell in his 'Vögel Nord-Ost-Afrikas' (p. 1):—In *Gypætus meridionalis* the tarsi, for above a quarter of their length in front and inside, and for above half of their length behind and outside, are bare of feathers and reticulated; and the region of the corner of the mouth, extending

* [It is with very deep regret that, while these pages are passing through the press, we learn that the hope above expressed—a hope which had been entertained, we are sure, by every ornithologist, can never be realized, owing to the premature death of Mr. Andersson.—ED.]

thence below the eyes as far as the region of the ear, is covered with a white woolly down without admixture of any of those black bristles which exist in that part in specimens of *G. barbatus*.

Dr. Rüppell gives Abyssinia, Nubia, Egypt, and Arabia Petraea as the habitat of *G. meridionalis*, to which must be added Southern Africa. The Læmmergeyer of the Atlas range is *G. barbatus* (cf. Cat. Rapt. B. Norw. Mus. p. 82).

2. NEOPHRON PERCNOPTERUS (Linn.), Egyptian Vulture.

Mr. Blyth has recently pointed out (Ibis, 1866, p. 233) that *N. ginginianus* (Lath.) should be withdrawn from the synonyms of *N. percnopterus* (amongst which Mr. Layard, following the example of previous authors, has included it), and restricted to the nearly allied but distinct white Vulture of India.

3. NEOPHRON PILEATUS (Burch.). Pileated Vulture.

It is worthy of remark that South-African examples of this species are somewhat larger than those obtained north of the Equator.

The late Dr. Vierthaler found this Vulture breeding in Senaar during the months of December, January, and February. He states (Naumannia, 1852, pt. i. pp. 46, 47) that the nest was always built on a high *Mimosa*, and contained a single egg, of a yellowish- or greyish-white, with rufous or yellowish spots or patches. On the Gambia this Vulture has been observed to nest on the silk-cotton tree (Cat. Rapt. B. Norw. Mus. p. 55).

In referring to the above remarks of Vierthaler, I may add that many interesting notes of his ornithological researches in North-eastern Africa were published in the '*Naumannia**, and those of his companion, Dr. Alfred Edmund Brehm, in the '*Journal für Ornithologie*' †, and that I have availed myself of both these sources of information in many of the following observations.

* 1852, (pt. i.) pp. 28-58, (pt. ii.) pp. 56-63; 1853, pp. 18-22; 1855, pp. 371-380, 469-479; 1856, pp. 68-76, and 1867, pp. 105-113.

† 1853, pp. 74-78, 451-457; 1854, pp. 73-85; 1855, pp. 362-384, 481-496; 1856, pp. 328-335, 395-413, 464-497; 1857, pp. 76-93, 214-222, 377-384; 1858, pp. 325-330, 400-410, 467-476.

With reference to the species now under consideration, Dr. Brehm remarks that two of these Vultures, which he shot in the act of incubation, proved to be male birds, and also (J. f. O. 1858, p. 403) that on pulling down another nest containing an egg, on which the old Vulture had been sitting when he approached the tree, he captured amongst the twigs which formed the foundation of the nest a species of Dormouse (supposed to be *Myoxus cauvei*) which had formed its own retreat in this singular situation.

7. GYPS RUEPPELLI, Bonap. Rüppell's Vulture.

Mr. Layard cites somewhat dubiously the occurrence of this Vulture in Natal; but the specimens sent thence by Mr. Ayres, and mentioned in the 'Ibis' for 1860 (p. 206), are undoubted examples of this species.

Both Vierthaler and Dr. A. E. Brehm describe this bird as being remarkably pugnacious when wounded—much more so (according to their observations) than any other African Vulture.

Mr. G. R. Gray, to whose kind assistance I have been much indebted in compiling these notes, as on many previous occasions, agrees with me in considering that this Vulture should bear the specific name of *rueppelli*; the synonyms *G. vulgaris* and *G. kolbii* being primarily referable to *G. fulvus*.

12. AQUILA FASCIATA, Vieill. Bonelli's Eagle.

Mr. Layard refers to an Eagle shot at Wynberg, and identified by me as belonging to this species.

I have no distinct recollection of this specimen; but subsequently to my examination of it I became better acquainted than I then was with a closely allied species—*Spizaetus spilogaster*, Bp. (R. Z. 1850, p. 487), which greatly resembles Bonelli's Eagle in the character both of its adult and of its immature plumage, and the female bird of which nearly equals in size the male of *A. fasciata*. Under these circumstances I think it is not impossible that the bird which I believed to be a South-African example of Bonelli's Eagle may prove, on closer examination, to be a female specimen of *S. spilogaster*, and I wish to draw attention to the subject as one in respect of which further investigation is desirable.

14. *SPIZAETUS CORONATUS* (Linn.). Crowned Hawk-Eagle.

As Mr. Layard says, with regard to this species, that he knows "nothing of its habits or range," I may remark that in Western Africa it extends as far north as Senegal; but in Eastern Africa I am not aware that it has been observed further north than Natal, where Mr. Ayres has known it to attack various kinds of prey—in one instance a large monkey, in a second a Cochin fowl and a small pig, and in a third a hen Turkey (Cf. *Ibis*, 1861, p. 129, and 1863, p. 331).

18. *CIRCAETUS PECTORALIS*, A. Smith. Black-breasted Harrier-Eagle.

Sir A. Smith's name has priority of publication over Cuvier's *Falco thoracicus*, under which specific Mr. Layard includes it. He mentions this species as being "destructive to young lambs;" but, from the circumstance of Mr. Ayres only finding snakes and lizards in the stomachs of those which he examined (*Ibis*, 1859, p. 238, and 1860, p. 203) I suspect that, like its northern congener, *C. gallicus*, it is usually reptilivorous. I have little doubt that the monkey- and cat-eating Eagle mentioned by Mr. Layard as "probably of this species" was in fact an example of *Spizaetus bellicosus* (No. 15) in the adult plumage, figured by Sir A. Smith (Ill. Zool. S. Afr., *Aves*, pl. 42).

CIRCAETUS FASCIOLATUS, Gray. Banded Harrier-Eagle.

This species, though omitted from Mr. Layard's Catalogue, is undoubtedly distinct, and is easily recognizable, being the smallest species of the genus *Circaetus* in its restricted form—that is, excluding the genus *Spilornis*, which Mr. Layard (unadvisedly, as I venture to think) combines with it in treating of *Spilornis bacha*.

Circaetus fasciolatus appears to be very rare; and I have only seen three examples of it, which were all obtained in the Colony of Natal. One of these had been feeding on *Termites* (*Ibis*, 1861, p. 130). This specimen is figured in 'The Ibis' for 1862 (pl. iii.), and is preserved in the Norwich Museum, which also possesses a second example. The type-specimen is in the British Museum.

19. *SPILORNIS BACHA* (Daud.). Malay Harrier-Eagle.

Mr. Cassin, in the "Proceedings of the Academy of Natural Sciences of Philadelphia" for 1865, states (p. 2) that there is in the Museum of the Academy a specimen which formed part of a collection made by M. du Chaillu in the countries adjoining the rivers Camma and Ogobai, in West Africa, and that this specimen, in Mr. Cassin's opinion, belongs to the species described by Le Vaillant under the name of "*Le Bacha*," and usually considered to be identical with the *Falco bido* of Horsfield. Mr. Cassin regards this specimen as proving conclusively that a species at least nearly allied to *Spilornis cheela* and *S. bido* inhabits Africa.

In calling attention to Mr. Cassin's remarks, I may add that, so far as I know, the specimen to which he refers must be unique, and it is much to be desired that an accurate figure of it should be published for the guidance of those interested in African ornithology.

23. *HELOTARSUS ECAUDATUS* (Shaw). Bateleur-Eagle.

This Eagle is found in Natal and also in the Transvaal; and Mr. Ayres has given (*Ibis*, 1859, p. 238, and 1862, p. 35) some accounts of its habits as observed by him in Natal.

I recently saw two young birds of this species, which were brought alive to London by Mr. Thompson, an American collector, who informed me that he obtained them, with the assistance of a Caffre, from a nest situated in a lofty and rocky precipice by the side of a river a few miles above the town of D'Urban, and that, as it was not convenient to him to remove them immediately, he fastened them down to the ground at the foot of the precipice, where the old birds fed them for several days, until it suited him to take them away. The pale-backed variety of the Bateleur, to which Prince Paul of Würtemberg assigned the name of *H. leuconotus*, sometimes occurs in Southern as well as in intertropical Africa*.

Whether these pale-backed birds are specifically distinct from those of the ordinary colour is at present doubtful; but the

* [Respecting *H. leuconotus* see Dr. von Heuglin's recent remarks (*J. f. O.* 1867, pp. 291, 292).—ED.]

difference in coloration between the two is certainly very marked, as may be seen by those who have the opportunity of examining the fine adult specimens of each that are now living in the Gardens of the Zoological Society of London.

This question is discussed by Dr. Hartlaub, who cites various authorities with reference to it (Orn. Westafr. p. 7); but further observations (especially on the birds in their wild state) appear to be requisite for its satisfactory solution.

24. *FALCO PEREGRINUS*, Gmel. Peregrine Falcon.

Mr. Layard has included under the synonyms of this species *F. barbarus*, Linn.; but the latter is, without doubt, specifically distinct, as was clearly pointed out by Mr. Salvin (Ibis, 1859, p. 184, pl. vi.).

The Norwich Museum, in addition to the specimen of *F. peregrinus* from Natal to which Mr. Layard refers, also possesses an example from the Cape of Good Hope. Both these birds are adult females.

28. *CHICQUERA RUFICOLLIS* (Swains.). African Red-necked Falcon.

Vierthaler, who met with this species somewhat plentifully in Sennaar, states (Naumannia, 1852, pt. ii. pp. 48, 49) that it usually perches, and always breeds, on the Dhelleb, Dolléb, or Debbel Palm (*Borassus æthiopicus*); and Dr. von Heuglin, who also observed this Falcon on the upper part of the Blue Nile, refers to its preference for this tree (Ibis, 1860, p. 409). Both Vierthaler (*loc. cit.*) and his companion, Dr. A. E. Brehm (J. f. O. 1858, p. 408), remark that *Columba guinea* also selects the same species of palm for its nest, and that a pair of these Falcons and a pair of Guinea Pigeons frequently have their nests on the same tree, and live as neighbours in apparent amity; both species were found thus in Sennaar in the month of January 1851.

According to the account given by Sir Andrew Smith in the 'South African Quarterly Journal' (vol. i. No. 3, April-June 1830, pp. 233-235), both the manner and the season of breeding adopted by this Falcon in South Africa somewhat differ from its habits in these respects as observed in Sennaar.

His account of its nidification in South Africa is as follows : —“ Specimens of this hawk are not unfrequently found along the western coast, and I have also met with some about the Langekloof, at least three hundred miles to the eastward of Cape Town. In these situations it is often seen resorting, in the evenings, to the poplar and other trees in the vicinity of farm-houses, and upon such also it often builds its nest. The latter is constructed externally of dry twigs, and within of hair and feathers, and in it are deposited from three to four eggs, during the months of August and September.”

I think that Bonaparte was fully justified in assigning this species and its Indian congener *Falco chicquera*, Daud., to the separate genus which he instituted (Rev. Zool. 1854, p. 535) under the title of *Chicquera*; as they appear to me to form a group generically distinct both from the typical Falcons and also from the various genera most nearly allied to the genus *Falco*.

29. HYPOTRIORCHIS SUBBUTEO (Linn.) Hobby.

HYPOTRIORCHIS CUVIERI (A. Smith). Cuvier's Hobby.

These two Hobbies, though treated by Mr. Layard as belonging to the same species, are unquestionably distinct.

They both occur in South Africa, but both appear to be rare in that region.

H. cuvieri, described by Sir A. Smith in 1830 (S. Afr. Quart. Journ. i. p. 392) is nearly allied to the peculiar Hobby of South-eastern Asia, *H. severus* (Horsf.), and has been figured by Professor Schlegel (Nederl. Tijdschr. Dierk. i. p. 123, pl. 5) under the name of *Falco boschii* (Cf. Ibis, 1864, p. 398).

ERYTHROPUS AMURENSIS (Radde). Eastern Redfooted Hobby.

The occurrence of this species in South-eastern Africa is recorded in my last paper on the birds of Natal (*suprà*, p. 41). Its congener, *E. vespertinus*, I have not seen from any locality south of Damara Land.

33. TINNUNCULUS RUPICOLOIDES (A. Smith). Greater South-African Kestrel.

Mr. Ayres states that this is one of the commonest Falcons in the Transvaal. He thinks that it is sometimes deprived of its nest by *Corvus capensis*, Licht. (*C. segetum*, Temm.), as on one occa-

sion he saw a pair of these Kestrels ineffectually endeavouring to drive away two Crows of this species from a nest in a willow-tree, which Mr. Ayres believes that the Kestrels had built. Whichever of the rival claimants were the builders of the nest, the Crows were its ultimate occupants, three young Crows having been taken out of it about a month after the contest above related.

34. *AVICIDA VERREAUXI*, Lafr. South-African Pern.

AVICIDA MADAGASCARIENSIS (A. Smith). Madagascar Pern.

35. *PERNIS APIVORUS* (Linn.). European Pern.

Mr. Layard includes *Buteo madagascariensis*, A. Smith, amongst the synonyms of *Pernis apivorus*; but it is a very distinct bird, nearly allied to, though not identified with, *Avicida verreauxi* (Cf. Ibis, 1864, p. 357). Whether this last-named species is identical with *A. cuculoides* of West Africa, is a point upon which I am unable to offer an opinion, not having seen the West-African bird, but I think it quite possible that Mr. Layard may be right in uniting them; for, although Dr. Hartlaub treats them as distinct (Orn. Westafr. p. 10), he does not appear to speak very positively on the point.

36. *MILVUS MIGRANS* (Bodd.). Black Kite.

Under the name of *M. ater* (Gmel.), which yields in priority to that above given, Mr. Layard treats this Kite as identical with *M. govinda* and *M. affinis*; but they form three distinct species, of which the first only occurs in Africa. The specimen of *M. migrans* killed at Colesberg was shown to me by Dr. Selater, and is the most southern example of that Kite which I have seen. It has however occurred in Madagascar (Ibis, 1863, p. 337).

39. *ASTUR MELANOLEUCUS*, A. Smith. Black-and-white South-African Gos-Hawk.

Both sexes of this species seem, when adult, to be liable to a melanism, which is figured by Sir A. Smith (Ill. Zool. S. Afr., *Aves*, pl. 18, fig. A). I have already made some remarks on this subject (Ibis, 1864, p. 357); but it is one in respect of which further observation and investigation are much to be desired.

40. ACCIPITER TACHIRO (Daud.) Tachiro Sparrow-Hawk.

I have received numerous specimens of this Hawk from Natal, in all stages of plumage, and have also seen it from the Zambesi. Mr. Ayres states that it attacks small birds; but he took the remains of a frog from the stomach of one specimen (Ibis, 1859, p. 241), and some crickets from that of another (Ibis, 1860, p. 204). A third specimen was shot by him whilst pursuing on foot, amongst some rough grass, some chickens which had taken refuge in that cover (Ibis, 1862, p. 155). An adult female in the Norwich Museum from the Zambesi is much paler in the coloration both of its upper and under parts than is the case with the adult females I have received from Natal. These it also slightly exceeds in the length of the tail, tarsus, and wing from the carpal joint to the end of the primaries.

41. ACCIPITER POLYZONOIDES (A. Smith). Many-banded Sparrow-Hawk.

This species is frequent in collections from Damara Land; and I have also seen it from the Zambesi, but not from Natal. It is apparently the southern representative of *A. brachydactylus* (Swains.), which latter is probably identical with *A. sphenurus* (Rüpp.).

42. ACCIPITER MINULLUS (Daud.). Least African Sparrow-Hawk.

Mr. Layard's description of this species has been taken from an immature specimen, the plumage of the adults of both sexes being almost exactly the same as that of the adults of *A. tachiro*, with the addition of conspicuous white spots on the inner webs of the rectrices. The Norwich Museum contains specimens from Natal both in immature and adult plumage, and also an adult female from the Zambesi. In coloration this last differs from Natal examples of the same age and sex in the same manner as does the Zambesian specimen of *A. tachiro* which I have above mentioned. This variation of colour is perhaps that referred to by Dr. von Heuglin in his remarks on *A. minullus* (Ibis, 1861, p. 75). In the case of this species, however, there is no corresponding difference of dimensions.

44. MELIERAX GABAR (Daud.). Gabar Hawk.

Dr. von Heuglin (Ibis, 1861, p. 74) mentions a remarkable difference in size observed in this species between specimens obtained in Eastern and in Western Africa; and it would be interesting to ascertain with which of these two forms examples obtained in Southern Africa most nearly agree. Mr. Layard gives the measurement of a South-African specimen, but does not mention the sex, which, for the purpose of such a comparison as that above suggested, would, of course, be an essential consideration.

The habits of this Hawk, as observed in Sennaar, are thus described by Dr. A. E. Brehm (J. f. O. 1857, p. 84):—"It lives just like our Sparrow-Hawk; but it is not so active, and resembles its congener the sluggish *Melierax polyzonus*;" and again (J. f. O. 1858, p. 404), "its whistle is clear and penetrating, resembling very much that of *Elanus melanopterus* . . . it pursues insects more than birds." I have not seen this species from Natal.

46. MELIERAX MUSICUS (Daud.). Chanting Hawk.

The geographical range of this strictly southern bird is singularly limited in comparison with that of the nearly allied intertropical species *M. polyzonus*, Rüpp. I have never seen *M. musicus* from any locality north of the tropic of Capricorn; and Mr. G. R. Gray informs me that the Hawk from the Gambia, in the British Museum, which Dr. Hartlaub, in his 'Ornithologie Westafrika's,' mentions (pp. 12, 13) as an example of *M. musicus* is in fact a specimen of *M. polyzonus*, and now stands as such in the Museum series of Raptorial birds.

Mr. Ayres has not met with this species hitherto either in Natal or in the Transvaal, but has transmitted to me the following notice of its habits by Mr. Phillips, who observed it in about lat. 25° S. and long. 25° W.:—"It frequents bushy country and lives principally on the ground, but is very shy, and, when disturbed, settles on trees. It runs with exceeding swiftness, and in habits much resembles the Secretary-bird; its food consists of grasshoppers and other insects." Mr. Phillips's note was accompanied by a specimen of the bird, which was sent to me for identification.

47. *POLYBOROIDES TYPICUS*, A. Smith. African *Gymnogene*.

Mr. Layard, in common with some other authors, treats the Madagascar race, *P. radiatus* (Scop.), as identical with the African; but it seems to me to be, without doubt, specifically distinct, having always, in its adult state, the transverse white bars on the abdomen and adjacent parts conspicuously broader than is the case in the African species, from which it also differs in the paler grey of the upper surface, and especially of the head and neck. This distinction is pointed out by Dr. Hartlaub (Orn. Westafr. p. 3); and he adds the following remarks with reference to this species, to which I am desirous of calling attention:—

“In *P. typicus* there exists, according to a communication from that expert and credible observer, Jules Verreaux, a very remarkable peculiarity, namely that the tarsus at the knee-joint is moveable towards the front as well as behind, a provision which renders no little assistance to the bird in drawing out frogs in its talons from the marsh-holes. . . . Verreaux saw it in such places twist and turn its legs in all directions, and in the most surprising manner, in order to capture its prey.”

This singular property has been also observed by Mr. Ayres in Natal (*Ibis*, 1859, p. 237); and a similar observation as to the reversibility of the upper metatarsal joint in the Madagascar species has also been made by Mr. Edward Newton (*Ibis*, 1863, p. 338).

Professor Owen, who very obligingly examined, at my request, a skeleton of *P. typicus* with reference to this peculiarity, informed me that:—

“The peculiar power of reversing the ordinary position of the metatarsus appears to depend, not on any modification appreciable in the configuration of the articular surfaces of the tibia and metatarsal bone, but on the smaller size and less cuneiform shape of the fibro-cartilage attached to the inner side of the capsule of the joint, and which is wedged in, in the Kite, Sparrow-Hawk, and, no doubt, in most other *Raptores*, between the two bones at the back of their joint. No doubt the lateral ligaments would present a correlated modification; but a dissection of the parts in the recent *Polyboroides* would be re-

quisite to ascertain the precise condition of the soft parts of the joint, with the modification of the tendons crossing it, connected with the peculiar extent of motion of the part. Certainly an inspection of the bones only would never have suggested the possession of the faculty" *.

I have mentioned somewhat at length this remarkable peculiarity of the genus, as Mr. Layard does not refer to it, and in the hope that the anatomy of recent specimens may be examined by South-African naturalists, as suggested by Professor Owen in the remarks above quoted.

The Norwich Museum possesses a nestling of *P. typicus*, obtained on the Niger by the late Dr. Baikie; but I am not aware that its mode of nidification has yet been recorded.

55. *TENIOGLAUX CAPENSIS* (A. Smith). Cape Owlet.

This little Owl must not be confounded (as in Mr. Layard's footnote, p. 38) with the next species, from which it is very distinct, having been correctly included by Dr. Kaup (Trans Zool. Soc. iv. p. 212) as the only African species of his subgenus *Tenioglaux*. It appears to be a rare species, but occurs in the vicinity of the River Zambesi as well as in the Cape Colony. I have not seen it from Natal.

56. *GLAUCIDIUM LICUA* (Licht.). Damara Owlet.

This species, of which Prof. Schlegel's *Noctua perlata capensis* (Mus. P. B., *Striges*, p. 37) is a synonym, is frequent in Damara Land; but I have not seen it from any more southern locality.

Dr. Kaup (Trans. Zool. Soc. iv. p. 205) treats it as distinct from its nearly allied but more northern congener, *G. perlatum* (Vieill.). I regret that I have not had sufficient opportunities of examining the northern race to justify me in expressing an opinion on the subject.

57. *HUHUA VERREAUXI* (Bp.). Verreaux's Owl.

This species seems to me to be most properly referable to Hodgson's genus *Huhua*, which should comprise all the large Owls allied to the genus *Bubo* but with dark-brown irides. The detailed definition of this genus is well given by Dr. Jerdon (B. Ind. i. p. 131), to which I would refer my readers.

* Cf. Cat. Rapt. B. Norw. Mus. pp. 14, 15.

With regard to the colour of the iris in the present species, which is stated by Mr. Atmore (as quoted by Mr. Layard) to be surrounded with a "narrow brick-red ring," I may mention that I have at different times seen living specimens of this Owl in the menagerie of the Zoological Society of London, in all of which the colour of the iris has been an intensely dark brown, without any surrounding red ring being visible, except so far as the somewhat conspicuous coral-pink eyelid has had that appearance.

I have hitherto considered *Huhua verreauxi* to be identical with *H. lactea* (Temm.) (*Bubo sultanus*, Lesson), and have included it under the name of *B. lacteus* in my lists of Natal birds (Ibis, 1863, p. 321, and 1868, p. 50); but on looking more closely into the subject, I believe that Mr. Layard is correct in following Bonaparte's conclusion, and in treating these two species as distinct. On comparing a specimen of *H. verreauxi* from Caffraria with an example of *H. lactea* from Bissao (both being female birds), I have found the following differences between the measurements of the two:—

	Ulna.	Carpus to tip of fourth primary.	Tarsus.	Tail.
<i>Huhua verreauxi</i> ♀ . .	8 in.	18·5 in.	3 in.	11 in.
<i>H. lactea</i> ♀	7·5	16	2·5	9·5

In these two specimens there is no appreciable difference of coloration; and the distinction between the two species appears, therefore, to rest upon size alone, as is also the case to a very great extent with the Indian and Indo-Malayan species of the genus *Huhua*.

Owing in great measure to the circumstance of but few naturalists having admitted the specific distinctness of these two birds, their respective geographical ranges have not at present been satisfactorily ascertained.

The localities given by Bonaparte (Consp. Av. i. p. 49) for *H. lactea* are Senegal and Sierra Leone; the specimen above referred to, and which belongs to the Norwich Museum, was obtained (as I have already mentioned) from the intermediate locality of Bissao.

A third African species of the genus *Huhua* is *H. cinerascens* (Guérin, Rev. Zool. 1843, p. 321).

This Owl was first discovered in Abyssinia, but was subsequently obtained on the Niger by the late Dr. Baikie; and a specimen is now living in the menagerie of the Zoological Society, which was brought from West Africa, though the exact locality whence it was procured is unknown.

This species much resembles the two preceding in its general coloration, but it wants the conspicuous black crescent which they both exhibit on the sides of the disk. In size it is much smaller than *H. lactea*, and barely equals *Bubo maculosus*.

A fourth African species of the same genus, of about the same size as *H. cinerascens*, but of a much less sombre coloration, is the West-African *H. fasciolata* (Temm.) (*Bubo poensis*, Fraser) *, a specimen of which is also living in the Zoological Gardens, and was figured in the "Proceedings" of the Society for 1863 (pl. xxxiii.); since that time, however, the yellow tints of its plumage appear to me to have assumed a richer and deeper tinge than they then possessed.

60. *EPHIALTES CAPENSIS* (A. Smith). South-African Scops-Owl.

Dr. Kaup (Trans. Zool. Soc. iv. p. 223), under the name of *Scops latipennis* (Licht.), and Dr. Hartlaub (Orn. Westafr. p. 20) treat this species as distinct from *E. senegalensis* (Swains.), with which Mr. Layard identifies it. I regret that I am unable to offer an opinion on the point, not having had an opportunity of comparing the two races.

61. *OTUS LEUCOTIS* (Temm.). African White-eared Owl.

A pair of these Owls from the Gambia lived for a short time in the menagerie of the Zoological Society of London; and I may here transcribe a note which I made after carefully ob-

* [The specific name of Mr. Fraser seems to us to possess unquestionable priority. The bird was described by him at a meeting of the Zoological Society on the 25th January, 1853, and the description was printed in the 'Annals and Magazine of Natural History' for February 1855 (p. 136). Temminck's name was not "published" (so far as we know) till Dr. Hartlaub gave utterance to it in the September "Heft" of the 'Journal für Ornithologie' for the same year (p. 354).—ED.]

serving them, both birds being at the time quite healthy and in good condition :—"The character of the plumage, the position and motion of the tufts or 'horns,' and the colour of the iris, which is rich orange, appear to show that this species is a true *Otus*. The eyes are peculiarly prominent, which is especially evident when the eyelids are closed."

Some particulars of the nidification of this species in Natal and in Damara Land will be found in 'The Ibis' for 1862 (p. 26).

BRACHYOTUS PALUSTRIS, Bp. Short-eared Owl.

The Zoological Society has lately acquired from Natal a living bird of this widely-spread species. It is a dark-coloured example, but not more so than some English specimens that have come under my notice.

65. STRIX POENSIS, Fraser. South-African Screech-Owl.

I do not feel by any means so confident as Mr. Layard is of the specific distinctness of the South-African form of *S. flammea*, not having had the opportunity of comparing a sufficient series of northern and southern birds to enable me to form a decided opinion on the subject; if, however, the southern race be really distinct, it should bear the specific name of *S. poensis*, which has priority over that of *S. affinis*, as has been pointed out by Mr. Blyth (Ibis, 1866, p. 251).

66. SCELOSTRIX CAPENSIS (Smith). South-African Grass-Owl.

Mr. Layard in his remarks on the preceding species, mentions this Owl and *Strix poensis* as being both of them as closely related to *S. flammea* "as the black Crows"; but the present species differs much from either of the others, in coloration, in configuration, and in habits, and belongs to the naturally distinct though restricted group forming the subgenus *Scelostrix* of Dr. Kaup (Trans. Zool. Soc. iv. p. 248), who treats the species as identical with the Indian *S. candida* (Tickell); but I agree with Mr. Blyth (Ibis, 1863, p. 31, note) and with Dr. Jerdon (B. Ind. i. p. 119) in believing them to be specifically distinct.

It is, I think, to be regretted that the following six distinct species of African Owls (to which I have prefixed Mr. Layard's numbers) should all have received the specific name of

"*capensis*," a circumstance not a little calculated to create confusion amongst them:—

(55.) *Noctua* [*Tanioglaux*] *capensis*, A. Smith, S. Afr. Quart. Journ. (1834) ii. p. 313; Ill. Zool. S. Afr., *Aves*, pl. 33.

(56.) *Strix* [*Glaucidium*] *licua*, Licht., Verz. Säug. u. Vög. aus dem Kaffernlande (1842), p. 12: *Noctua perlata capensis*, Schlegel, Muséum des Pays-Bas, *Striges* (1862), p. 37.

(58.) *Strix* [*Bubo*] *capensis*, Daud., Tr. Orn. ii. p. 209: *Bubo capensis*, A. Smith, S. Afr. Quart. Journ. (1834) ii. p. 317; Ill. Zool. S. Afr., *Aves*, pl. 70.

(60) *Scops* [*Ephialtes*] *capensis*, A. Smith, S. Afr. Quart. Journ. (1834) ii. p. 314; *Ephialtes latipennis*, Licht., Nomencl. Av. (1854) p. 7.

(64.) *Otus* [*Phasmoptynx*] *capensis*, A. Smith, S. Afr. Quart. Journ. (1834) ii. p. 316; Ill. Zool. S. Afr., *Aves*, pl. 67.

(66.) *Strix* [*Scelostrix*] *capensis*, A. Smith, S. Afr. Quart. Journ. (1834) p. 317; Ill. Zool. S. Afr., *Aves*, pl. 45.

67. CAPRIMULGUS NATALENSIS, A. Smith. Natal Goatsucker.

The observations of Mr. Ayres upon the habits and nidification of this Goatsucker will be found in 'The Ibis' (1859, p. 243, and 1860, p. 204); and I here refer to them, as Mr. Layard's notice of this species does not contain any information on the subject.

69. CAPRIMULGUS SMITHI, Bonap. Smith's Goatsucker.

71. CAPRIMULGUS INFUSCATUS, Rüpp. Fuscous Goatsucker.

On reexamination of the Goatsucker included in my list of the birds of Natal (Ibis, 1859, p. 242) under the name of *C. infuscatus*, I much regret to find that this identification was erroneous, the bird referred to being in reality an example of *C. smithi*. *C. infuscatus* must therefore be erased from the list of birds received by me from Natal.

I may add that the example of *C. smithi* just noticed confirms Mr. Layard's remark, that the male of this species is destitute of white markings on the tail.

74. *CYPSELUS GUTTURALIS*, Vieill., N. Dict. d'Hist. Nat. xix. p. 422; Tristram, P.Z.S. 1867, p. 887. South-African Alpine Swift.

75. *CYPSELUS BARBATUS*, Sclater, P.Z.S. 1865, p. 599. South-African Black Swift.

The Rev. H. B. Tristram, in a paper read before the Zoological Society of London, on 14th November, 1867, has shown that the two European Swifts, *C. melba* and *C. apus*, are specifically distinct from the nearly allied representative species of South Africa, which latter should respectively bear, as above, the names of *C. gutturalis*, Vieill., and *C. barbatus*, Sclater (*ex MS.* Temm.).

76. *CYPSELUS CAFFER*, Licht. White-rumped Swift.

The nidification of this Swift in South Africa, as described by Mr. Layard, and as also noticed in the Transvaal by Mr. Ayres (*Ibis*, 1868, p. 50), differs from its habits in this respect as observed in Sennaar by Dr. Vierthaler (*Naumannia*, 1852, pt. i. p. 34) and his companion, who found it breeding in holes about two feet in length and terminating in a basin. These holes were pierced in a steep river-bank; and in one of them a sitting bird of this species was captured on her nest, which contained three white eggs.

84. *HIRUNDO ATROCÆRULEA*, Sundev. Little Blue-black Swallow.

Mr. Layard inadvertently misquotes Mr. Ayres's observations (*Ibis*, 1863, p. 322) as to this species. Mr. Ayres does not say that it is the "most common," but the "most uncommon" of the Swallows of Natal.

86. *HIRUNDO ALFREDI*, Hartl. Prince Alfred's Swallow.

Mr. Tristram has recently received from Mr. Ayres a Swallow obtained in the Transvaal, which appears to be identical with that described by Mr. Layard in his 'Catalogue' under the name of *H. lunifrons*; but, though allied to that American species, this Swallow is specifically distinct from it. Dr. Hartlaub, who has examined one of the specimens sent over by Mr. Ayres, agrees with me in this opinion, and also in considering that the South-African bird belongs to an undescribed species.

The discovery of this new African Swallow being due to Mr. Layard's remarkable and acute detection of its nest in a photograph taken during the first visit of His Royal Highness the Duke of Edinburgh to the Cape, this circumstance may be commemorated, and, as it seems to me, very appropriately, by designating this species "Prince Alfred's Swallow;" and Dr. Hartlaub has acted on my suggestion to this effect in describing it under the name of *Hirundo alfredi*.

Dr. Hartlaub writes to me respecting this addition to the list of African Swallows in the following words:—

"The Swallow is very certainly new. Layard describes it under the name of *H. lunifrons*. Your specimen is a younger bird; it belongs to the American section of *H. fulva* and *H. lunifrons*."

I am further indebted to Dr. Hartlaub for the following diagnosis of *HIRUNDO ALFREDI*:—

"Supra fusco et chalybeo variegata, caudâ emarginatâ et alis fuscis; uropygio et supracaudalibus ex parte dilute ex auran-tiaco rufis; subtus albicans, pectore, hypochondriis et subala-ribus læte rufescentibus; vittâ brevi utrinque a rostro super oculum extendente rufâ; crisso et subcaudalibus ex parte intense rufis; rostro nigro. Gulâ albido et rufescente variegatâ.

"Long. circa 5", rostr. 3", al. 4" 3"; caud. 2".

"In a younger (?) specimen, there are traces of a dark pec-toral band, and the superciliary line is more like a rufous whitish loreal spot. It seems to me very possible that neither the bird described in Mr. Layard's new work, nor that submitted to my examination by Mr. J. H. Gurney is quite adult."

I cannot concur in Dr. Hartlaub's suggestion that the last-named specimen is immature; as it is the male of a pair shot from a colony at the period of incubation, and sent to Mr. Tris-tram, with some eggs taken from the adjoining nests at the same time; two of these eggs, together with the male bird here described, have been figured by Mr. Wolf in the accompanying plate (Plate IV.); the female specimen only differs from the male in having a rather slighter intermixture of steel-blue on the feathers of the gorget and less distinct pale brown margins on those of the occiput.

Mr. Ayres gives the following account of the colony of these Swallows in the Transvaal, from which the birds and eggs sent to Mr. Tristram were obtained :—" During the last Free-State war with the Basutos many farmers left their homesteads to the mercy of the Caffres ; and at one of these deserted houses I found many hundreds of these Swallows breeding in December, the walls being lined with nests, one under the other and adjoining, for three or four feet under the eaves. There were over five hundred nests on one wall in a length of forty feet. The nests are round in shape, the opening facing outwards and downwards, composed of mud, and well lined with the flowers of grass and feathers.

"The mosquitos and sandflies, elsewhere in the Free State a complete plague in the summer months, are thoroughly cleared off in the neighbourhood of these Swallows ; and whilst resting under the shade of the peach- and lemon-trees, watching the busy colony, one feels grateful to the tiny birds for the peace and quietness enjoyed through their labour.

"The whole length of this Swallow is 6 inches : iris dusky ; bill black ; tarsi and feet dusky."

109. CERYLE MAXIMA, Pallas. Great African Kingfisher.

As Mr. Layard, in his notice of this Kingfisher, mentions that "in some specimens the under parts differ in the distribution of the colours," I may refer to some details formerly given (*Ibis*, 1859, p. 244) of the distribution of the colouring on the under parts of each sex of this species, both in its immature and in its adult state, founded upon dissections made by Mr. Ayres of specimens obtained by him in Natal.

112. MEROPS SAVIGNII (Swains.).

113. MEROPS ÆGYPTIUS, Forsk. Egyptian Bee-eater.

I may here insert the following remarks, contained in a communication with which I have been favoured by Mr. G. R. Gray, whose assistance I sought with reference to the synonymy of these Bee-eaters :—

"*Merops ægyptius*, Forsk., is much the oldest name, being published in 1775, while Cuvier's *M. savignyi* dates only from

1817. These two names are coequal; Swainson, however, has applied the name of *savignyi* to two different species, viz.:—

M. savignyi, Swains. Zool. Ill. pl. 76 = *M. albicollis*, Vieill. N. Dict. d'Hist. Nat. xiv. p. 15.

M. savignyi, Swains. B. W. Afr. ii. p. 77, pl. vii. = *M. chrysocercus*, Cab. & Heine, Mus. Hein. ii. p. 139.

"This latter is closely allied to *M. ægyptius*"*.

HEMIPTERYX IMMACULATA, Hartl. Plain-breasted Pinepine.

Mr. Layard's 'Catalogue' does not include this new species discovered at Windvogelberg by Capt. Bulger, and described by Dr. Hartlaub in the 'Proceedings' of the Zoological Society of London for 1866 (p. 22).

147. DRYMÆCA PALLIDA, A. Smith. See below, under no. 162.

149. DRYMÆCA NATALENSIS, A. Smith. Natal Drymæca.

In both this species and the nearly allied *D. curvirostris* the male is considerably larger than the female, a fact which has been already noticed (*Ibis*, 1865, p. 274); but as it seems to me an interesting peculiarity, I am desirous of again drawing attention to it, as a point not to be lost sight of in the study of this genus.

153. DRYMÆCA ABERRANS, A. Smith. Aberrant Drymæca.

I regret to find that I have fallen into an error with reference to a specimen which was sent to me from Natal, and mentioned by me in 'The Ibis' (1863, p. 324) as belonging to this species. It proves, on closer examination, to be an example of *D. affinis*, Mr. Layard's no. 154. The only specimen I have seen of the true *D. aberrans* is Sir A. Smith's original type, which is preserved in the British Museum.

162. DRYMÆCA MELANORHYNCHA, Jardine and Fraser.

Mr. G. R. Gray informs me that, from a recent examination of specimens, he has arrived at the conclusion that *D. melanorhyncha* (Contr. Orn. 1852, p. 60) must be considered merely a synonym of *D. pallida*, no. 147 of Mr. Layard's 'Catalogue.'

* [It would therefore appear that Mr. Layard's No. 112 should stand as *M. chrysocercus*; but see Herr O. Finsch's remarks (J. f. O. 1867, pp. 239-245).—ED.]

and that it is not, as had been previously supposed, a distinct species.

164. *DRYMÆCA CURVIROSTRIS*, Sundev. Curve-billed Drymœca. See note under no. 149.

171. *EREMOMELA BRACHYURA* (Vieill.). Short-tailed Eremomela.

I think Mr. Layard is in error in stating that this species has been obtained by Mr. Ayres in Natal. I have not seen it from that colony.

SYLVIETTA MICRURA (Rüpp.). Short-tailed Sylvietta.

Mr. Layard does not include this species in his 'Catalogue;' but a single example has been sent to me from Natal (Ibis, 1865, p. 265). It is a common bird in collections from Damara Land; and Dr. von Heuglin, who met with it as far north as Nubia, states (Sitzungsb. Akad. Wissensch. Wien, 1856, p. 21) that "in its habits and call it bears a great resemblance to *Sitta europæa*."

177. *CALAMOHERPE GRACILIROSTRIS*, Hartl. Slender-billed Reed-Warbler.

Mr. Layard has omitted to record that the type-specimen of this species and also those of *Camaroptera natalensis*, *Turdus gurneyi*, *Butalis cærulescens*, *Estrela nitidula*, and *Megalophonus rostratus*, were procured by Mr. Ayres in addition to *Cisticola ayresi*, the discovery of which by that naturalist is mentioned by Mr. Layard (p. 94). I trust I may here be allowed to supply this accidental omission, in justice to my valued correspondent, who has also subsequently added an eighth new species to the South-African avifauna by the discovery of another undescribed Finch, *Estrela carmelita*, to which I shall more particularly refer in its proper order.

I may add that four of the above-mentioned species appear to be of considerable rarity, as of *Turdus gurneyi*, *Estrela nitidula*, and *Estrela carmelita* I have only seen the single type-specimens, and of *Butalis cærulescens* only the type-pair, one of which (as the sexes agree in plumage) I have placed in the British Museum.

CALAMOHERPE STREPERA (Vieill.). Lesser Reed-Warbler.

The only South-African specimen of the Lesser Reed-Warbler which has come under my notice was sent from Natal, and differs from English examples in its shorter primaries and somewhat more rounded tail, as noted in '*The Ibis*' (1865, p. 266), where I have mentioned this specimen under the name of *C. arundinacea*, which, however, is properly applicable to the Greater Reed-Warbler (*Sylvia turdoides*, Meyer).

It would be interesting to ascertain whether other South African examples of this Warbler present a similar deviation from the European type.

179. CAMAROPTERA NATALENSIS, Hartl. Natal Camaroptera.

The British Museum possesses an example of this bird, obtained in Natal, which differs singularly from the usual coloration of the species, its plumage being of a uniform but very pale fawn-colour, except on the upper part of the head, where it is of a somewhat darker fawn than elsewhere.

196. THAMNOLÆA ALBISCAPULATA (Rüpp.). White-shouldered Chat. See below, under no. 208.

207. PRATINCOLA PASTOR, Strickl. South-African Stonechat.

I have much doubt as to whether this Stonechat is specifically distinct from the European race, from which it appears to me to differ only in the purer black of the head, neck, and back of the male, caused by the absence of the minute brown tips and margins which occur on the feathers of those parts in European specimens. I have treated the two races as identical in my list of Natal birds (*Ibis*, 1860, p. 208).

208. THAMNOBIA PTYMATURA (Vieill.).

I have to thank Mr. Layard for pointing out a mistake which I made (*Ibis*, 1863, p. 328) in admitting the name of this species into my list of Natal birds. The specimen which I had before me at the time appeared to agree with the first figure of Le Vaillant's plate (no. 188); but by an unfortunate error I appended to it the name of the species represented in the second figure of the same plate, and thus included it in my list under the name of *Thamnobia ptymatura* instead of under that of *Tham-*

nolæa albicapulata (no. 196 of Mr. Layard's 'Catalogue'), the species represented in Le Vaillant's first figure, and to which the specimen in question belonged. This specimen was ascertained by Mr. Ayres to be a female; but it does not differ from the ordinary plumage of the male bird, except by the presence of two small black spots adjacent to each other, and situated a little in front of the middle of the white shoulder-patch, very much as they are represented in Le Vaillant's figure.

The presence of the white shoulder-patch in the female bird was relied on by Bonaparte in his 'Conspectus' (i. p. 302) as the ground for separating this species from *T. cinnamomeiventris* (Lafr.); but after comparing the specimens sent to me from Natal with those which are preserved in the British Museum, it is my impression that neither the presence nor the absence of the white shoulder-patch in the female is a constant specific character, and that it more probably depends upon the age of the specimen. I therefore think that Mr. Layard is right in treating *T. cinnamomeiventris* (under which name I have included the species in my Natal list, Ibis, 1864, p. 349) as merely a synonym of *T. albicapulata*.

The passage in 'The Ibis' above mentioned contains a curious account, supplied by Mr. Ayres, of a semidomesticated individual of this species, an adult male bird, which was styled a "mock-bird" by its owner, from which I infer that it possessed imitative powers, probably similar to those of *Saxicola pileata* and *S. bifasciata*.

247. BESSORNIS NATALENSIS (A. Smith).

I retain the opinion which I formerly expressed (Ibis, 1862, p. 152) that Sir Andrew Smith's *Cossypha natalensis* (Ill. Zool. S. Afr., *Aves*, pl. 60) is merely the immature plumage of *B. vociferans* (no. 245 of Mr. Layard's 'Catalogue').

CRATEROPUS SWAINSONI, A. Smith. Swainson's Crateropus.

This species is not included by Mr. Layard; but Dr. Hartlaub (P. Z. S. 1866, p. 436) mentions it as South-African, though without giving any particular locality for it.

298. CAMPEPHAGA MELANOXANTHA (Licht.). Southern Yellow-shouldered Caterpillar-eater.

Mr. Layard cites *Ceblepyris melanoxantha*, Licht., as a synonym of *Campephaga phænicea* (Lath.); but, as I have already stated (*suprà*, p. 45), I believe that "*melanoxantha*" is the correct specific name of the Yellow-shouldered Caterpillar-eater of Southern Africa, as '*xanthornoides*' is of the distinct Yellow-shouldered species of West Africa.

The females, and probably the young males also, of *Campephaga nigra*, *C. phænicea* and *C. melanoxantha* appear closely to resemble each other in plumage; but I am not aware that the female of *C. xanthornoides* has yet been identified.

305. MELENORNIS ATRA (Sundev.). Black Flycatcher.

As Mr. Layard cites this species with apparently some doubt as to its title to admission into his 'Catalogue,' I may refer to a specimen recorded by me (*Ibis*, 1865, p. 268) as having been sent from Natal by Mr. Ayres. This was a female bird, and was believed by Mr. Ayres to have been recently incubating, though he did not succeed in discovering its nest.

311. ENNEOCTONUS AURICULATUS (P.L.S. Müller). Woodchat-Shrike.

Mr. Layard remarks of this Shrike that "it is probably not African," which last word I presume should have been written "South-African," as the Woodchat is a well-known bird in many parts of Africa north of the Equator. The specific name above given is, I believe, the correct one according to the rule of priority.

312. NILAUS CAPENSIS, Shaw. Brubru-Shrike.

As Mr. Layard mentions that he has only received this Shrike from Damara Land, it may be desirable to refer to a specimen which was sent to me from Natal (*Ibis*, 1862, p. 31).

325. LANIARIUS BOULBOUL (Lath.). Boulboul-Shrike.

As it appears from Mr. Layard's investigations that this species is not known to breed in the Cape Colony, I may refer to Mr. Ayres's remark (*Ibis*, 1864, p. 351) that in Natal it "builds a coarse, open nest in a low bush or tree."

Mr. Ayres also mentions that the notes of this Shrike "are loud and curious; the male calls first, and is so immediately an-

swered by the female, that any one not acquainted with the fact would suppose all the notes to be uttered by the same bird."

This habit is also mentioned by Le Vaillant, and a description of a very similar habit in an allied species (*Laniarius erythrogaster*, Rüpp.) is given by Dr. A. E. Brehm (J. f. O. 1856, p. 481) as observed by him in Sennaar.

The synonym of *Laniarius ferrugineus*, Cuvier, applied by Mr. Layard to this Shrike, is, as I learn from Mr. G. R. Gray, in his opinion, a doubtful one; and I have therefore adhered to the name under which I have included the species in my sixth additional List of the Birds of Natal (Ibis, *loc. cit.*)*.

332. *CORVUS CAPENSIS*, Licht., Verz. Doubl. (1823) p. 20. South-African Rook.

This species is included in my fourth additional list of the birds of Natal (Ibis, 1862, p. 152) under the above name, which I believe has priority over the synonym of *Corvus segetum*, Temm. (Rec. d'Ois. 70^{me} livr.), under which it appears in Mr. Layard's 'Catalogue'†.

348. *BUPHAGA ERYTHORHYNCHA*, Stanley. Red-billed Buphaga.

Mr. Ayres has mentioned (Ibis, 1863, p. 328) that this is one

* [On this matter we append the remarks of Prof. Sundeval in his admirable criticisms of Le Vaillant's 'Oiseaux d'Afrique' (K. Vet. Akad. Handl. vol. ii. 1857).

"68. BOUBOU; in colonia frequens et in Caffraria.—*Lanius ferrugineus*, Gm.—(Minime *L. boulboul*, Lath. 49, quæ avis est indica, ægre determinanda, forte *Turdus pæcilopterus*, Vig.? sec. Bp. Csp. 274. Hinc tamen male orta sunt nomina:) *Droyoscopus!* *boulboul* Bp. Csp. 361, et *Malaconotus boulboul*, Cab. Mus. Hein. 69.—*M. rufiventris*, Sw. Classif. ii. p. 220 (ex Levaill.).—*M. ferrugineus*, nob. (ex litteris nostris a Bp. l. c. allatus)."

This learned author also observes further that "Boulboul" is the common Indian name for *Pycnonotus bengalensis*, and not to be confounded with the "Boubou" of Le Vaillant.—ED.]

† [It would appear, from a recent paper by Mr. Cassin (Proc. Acad. N. S. Philad. 1867, p. 216), that the name *C. afer* was conferred on this species in 1802 by an author in the 'Encyclopædia Londinensis' (v. p. 237); but it is as yet unknown who that author was.—ED.]

of the most useful birds of Natal, its food consisting entirely of *Acari* or ticks, which it picks from the cattle ; but Sir Samuel Baker, in his recent work ('The Albert N'yanza Great Basin of the Nile'), does not give the *Buphaga* so good a character. After describing a bird which is evidently either the present species or its near ally *B. africana*, Linn., he says (vol. i. p. 107):—"It is a perfect pest to the animals, and positively eats them into holes. The original object of the bird in settling upon the animal is to search for vermin ; but it is not contented with the mere insects, and industriously pecks holes in all parts of the animal, more especially on the back. I was obliged to hire little boys to watch the donkeys, and to drive off these plagues ; but so determined and bold were these birds, that I have constantly seen them run under the body of the donkey, clinging to the belly with their feet, and thus retreating to the opposite side of the animals when chased by the watch-boys. In a few days my animals were full of wounds, excepting the horses, whose long tails were effectual whisks." And again (vol. i. p. 343):—"I have now only fourteen donkeys ; these are in good condition, and would thrive, were not the birds so destructive by pecking sores upon their backs. These sores would heal quickly by the application of gunpowder, but the birds irritate and enlarge them until the animal is rendered useless. I have lost two animals simply from the attacks of these birds"*.

355. } *HYPHANTORNIS OLIVACEUS* (Hahn). Cape Weaver-
356. } bird.

I am indebted to the kindness of Dr. Hartlaub for the following statement of the intricate synonymy of this species:—

"*Icterus olivaceus*, Hahn, Vögel aus Asien, &c. Liefer. 6 (1822), fig. 4 (*fig. opt.*).

"? *Oriolus capensis*, Gmel., S. N., p. 392 ; Pl. Enl. 607, fig. 2 (♀) ?

"*Icterus caffer*, Licht., Verz. Doubl. (1823), p. 19. nos. 186, 187 (♂, ♀).

"*Ploceus abyssinicus*, Cuv. ; Less., Tr. d'Orn. (1830), p. 434.

* [We have to mention our obligations to Dr. Ewing for calling our attention to these interesting passages.—ED.]

" *Ploceus aurifrons*, Temm., Pl. Col. 175, 176 (♂, ♀).

" — *icterocephalus*, Swains., Nat. Hist. B. i. p. 189.

" — *capensis*, Smith, Ill. Zool. S. Afr., *Aves*, pl. 66, fig. 2 (sat. accur.).

" *Hyphantornis capensis* et *H. aurifrons*, Bonap., Consp. Av. i. p. 440; Reichb., Singvögel, figg. 315, 318; Layard, B. S. Afr. p. 179. nos. 355, 356."

EUPLECTES XANTHOMELAS, Rüpp. Northern Black-and-yellow Finch.

ESTRELD A CUCULLATA (Swains.). Hooded Finch.

ESTRELD A CARMELITA, Hartl. Carmelite Finch.

The occurrence in Natal of these three species, which are not included in Mr. Layard's 'Catalogue,' is recorded in the present volume of 'The Ibis' (pp. 46 and 51).

384. ESTRELD A MELANOGENYS, Sundev.

386. ESTRELD A DUFRESNII (Vieill.). Dufresne's Finch.

Mr. Layard gives these as distinct species; but, according to Dr. Hartlaub (Orn. Westafr. p. 142), the former is only a synonym of the latter.

390. ESTRELD A POLYZONA (Temm.). Little Bar-breasted Finch.

395. ESTRELD A SUBFLAVA (Vieill.). Sanguineous Finch.

As Mr. Layard does not appear to have personally met with either of these birds in South Africa, I may refer to Mr. Ayres's statement (Ibis, 1863, p. 329) that the first is found in Natal "from May to August or thereabouts," and, as regards the second (which I have included in my sixth additional list of Natal birds under the synonym of *E. sanguinolenta*, Temm.), that he once met with a flight of them "near Maritzburg in July" (Ibis, 1864, p. 352).

458. BUCORVUS ABYSSINICUS (Gm.). Abyssinian Hornbill.

The observations of Mr. Ayres as to the food of this species, and also as to its mode of attacking and dispatching snakes, have been placed on record (Ibis, 1861, p. 132, and 1862, p. 37), and are, I think, very curious as illustrating the voracious and indiscriminate appetite of this remarkable bird.

Some interesting particulars are recorded (Naumannia, 1857, pp. 109, 110) by Vierthaler of a bird of this species which was obtained by him during his journey through Sennaar. This individual was a solitary nestling, found by one of the traveller's attendants in the "roomy hollow of a mimosa." It was reared by Vierthaler on raw meat, and was preserved alive for some time during his boat-voyage on the Blue Nile and subsequent residence in the town of Chartum. In his account of its habits in captivity, the Doctor remarks that "it never left the barge; and if put ashore, it soon returned to its old place. It entered into friendly relations with a Monkey which was fastened by its side, and allowed itself to be kissed by the Monkey, and to have its feathers examined; frequently, indeed, the Monkey pulled the bird's head unmercifully down to him, pressed it into his lap, and violently forced its bill open, without the bird showing the least concern about it. Even at Chartum, where the bird walked about the courtyard unrestrained, it paid a daily visit to the Monkey, and they carried on their sport together for hours. There were several Monkeys tied up in the yard; but the bird well knew its friend, and never went to any of the others. This friendship continued until the death of the bird."

Three fine specimens of this Hornbill are now living in the menagerie of the Zoological Society of London; and, judging from them, and from a fourth lately dead, it would seem that the scarlet colouring of the throat is peculiar to the adult male, the throat of the adult female being of a dull dark blue.

493. *CHALCITES AURATUS* (Gmel.). Didric-Cuckoo.

Mr. Ayres has recently sent the egg of this Cuckoo to Mr. Tristram, from the Transvaal, accompanied with the following note:—"This bird is here during the summer months, disappearing in the autumn; it lays its eggs in some other bird's nest." Of course the "summer months" here referred to are the months of the South-African summer, which must be borne in mind by English readers. Mr. Tristram informs me that the egg above mentioned is very like some of the lighter-coloured eggs of the British House-Sparrow, and also very like the egg of the Great Reed-Warbler, *Calamoherpe arundinacea* (Linn.), from which,

however, it may be distinguished by its rich gloss, and by being slightly smaller and more elliptical.

495. *CHALCITES SMARAGDINEUS* (Swains.). Emerald Cuckoo.

Mr. Layard, under the head of this species, remarks that "all the Cuckoos of South Africa appear to be migratory, the majority of them making their appearance in the colony about October or November; some a little later." A question naturally arises as to how far northwards the South-African Cuckoos migrate to pass those months during which they are absent from their southern haunts. In connexion with this inquiry, I may quote the statement of Dr. H. Dohrn (P. Z. S. 1866, p. 329), that this species is found on Prince's Island, in the Gulf of Guinea, from the month of April to that of September.

502. *TRERON DELALANDII*, Bonap. Delalande's Tree-Pigeon.

As Mr. Layard only cites Kaffraria as a locality for this species, I may mention that Mr. Ayres has sent it to me from Natal (Ibis, 1862, p. 33), and informs me that he has also met with it in the Transvaal.

505. *COLUMBA TRIGONIGERA*, Wagl. Roussard-Pigeon.

This Pigeon, which Mr. Layard considers to be identical with its more northern congener, *C. guinea*, Linn., was treated by Bonaparte (Consp. Av. ii. p. 50) as a distinct species, and, as I think, with sufficient reason, the wings in *C. trigonigera* being an inch longer than in *C. guinea*, the triangular white spots on the upper wing-coverts smaller, and the colouring on the rump decidedly darker.

513. *PERISTERA AFRA* (Linn.). Bronze-spotted Dove.

Vierthaler (Naumannia, 1852, pt. i. p. 48) mentions a nest of this Dove (under the synonym of *P. chalcospilus*) which he found in Sennaar, consisting of a few twigs placed in "the hollow of a broken-off stem" about five feet high, on which was deposited "a yellowish-white" egg. A notice of the occurrence of this species in Natal will be found in the present volume (p. 48).

[To be continued.]

